Amendments to the Specification

Paragraph [0007] starting at page 3, line 12 and ending at page 4, line 3 has been amended as follows.

[0007] Also, since an image is formed by selectively discharging ink from the plurality of discharge ports of the recording heads during the recording operation, some of the discharge ports formed at the fronts of nozzles of the recording heads may remain in contact with the air without ink being discharged therefrom. In such nozzles, since ink in the nozzles gets evaporated and dried, and thus has an increased viscosity, the amount of discharged ink decreases and a discharge speed of ink decreases, thereby sometimes causing a discharge failure such as a wrong discharge direction. In order to remove the evaporated and dried ink having an increased viscosity, the discharge failure is prevented from occurring by discharging ink, ~~irrelevantly of~~ unrelated to the recording operation, from the nozzles of the recording heads towards an object other than a recording medium. Such a discharge-recovery operation is called a preliminary discharge operation.

Paragraph [0008] starting at page 4, line 4 and ending at line 20 has been amended as follows.

[0008] Also, when the recording operation of each recording head is continuously performed for a long time, the temperature of the recording head increases due to the heat stored when recording ink is discharged, which causes gas in a form of a

bubble ~~comes~~ to be mixed in an ink holder (common ink chamber) or the like placed in the vicinity of the nozzle of the recording head. When the bubble is inflated to a certain extent, the ~~bobble~~ bubble sometimes prevents ink from being fed to the nozzle, and resultantly from being normally discharged. In order to solve the ~~above mentioned~~ above-mentioned problem, a cap composed of rubber or the like is disposed so as to abut against the discharge-port surface of the recording heads (i.e., the surface in which the discharge ports of the recording heads are formed), so that bubbles together with ink remaining in the vicinities of the nozzles are forcefully sucked and discharged via the cap. Such a discharge-recovery operation is called a sucking operation.

Paragraph [0019] starting at page 9, line 4 and ending at line 12 has been amended as follows.

[0019] Meanwhile, in order to remove a strain caused by an ink drop accreted on the discharge-port surface of the recording heads, for example, Japanese Unexamined Patent Application Publication No. 6-328723 has disclosed a technique with ~~which,~~ which the discharge-port surface is cleaned by making ink in the nozzles to overflow towards the discharge-port surface, and then the temperatures of the recording heads are returned to those immediately before cleaning the discharge-port surface.

Paragraph [0045] starting at page 14, line 13 and ending at page 15, line 5 has been amended as follows.

[0045] Fig. 1 is a schematic perspective view illustrating the common structure of inkjet recording apparatuses according to embodiments of the present invention. As shown in Fig. 1, a recording medium [[4]] (not shown) in a form of a continuous roll of paper or a cut sheet is forwarded between recording heads 1 and a platen roller 23 for forming and maintaining a recording surface of the recording ~~medium 4~~ medium, while being pressed by a pinch roller (not shown) onto the platen roller 23. The recording heads 1 are mounted on a carriage 21 and are driven so as to perform serial scanning operations in the SA and SB directions indicated in the figure along two guide rails 24a and 24b so as to record an image on the recording medium. The carriage 21 is connected to a shaft 27 of a motor 26, having pulleys 28a and 28b and a belt 29 entrained about the pulleys 28a and 28b interposed therebetween, and is driven in the SA and SB directions in accordance with a rotation of the motor 26.

Paragraph [0050] starting at page 16, line 10 and ending at line 23 has been amended as follows.

[0050] With this arrangement, when one of the inkjet recording apparatuses receives recording image data through interface means (not shown), in order to record the data on the recording medium [[4]] forwarded by a paper-forwarding unit (not shown), the recording apparatus is controlled such that the carriage 21 having the recording heads 1 mounted thereon performs scanning operations in the main scan directions, that is, in the SA and SB directions. When the recording apparatus records an image

corresponding to one scanning operation, the recording medium [[4]] is forwarded in a direction (sub-scan direction) perpendicular to the traveling directions of the carriage 21, by an amount of one band corresponding to the width of the image recorded in the one scanning operation with the main scanning operation.

Paragraph [0056] starting at page 17, line 25 and ending at page 18, line 8 has been amended as follows.

[0056] As shown in Fig. 2, a controller 800 serving as a main control unit includes a ~~CPC~~ CPU 801 in a form of, for example, a microcomputer, for executing a sequence, which will be described later, and the like; a ROM 802 for storing a program corresponding to the procedure of the sequence, a variety of conversion tables, and fixed data including a voltage value and a pulse width of a heating drive pulse applied on the recording heads; and a RAM 803 for providing an image-data developing area, a working area, and the like.

Paragraph [0061] starting at page 19, line 8 and ending at line 12 has been amended as follows.

[0061] The motor 26 serving as a main scanning motor moves the carriage 21 in the main scan directions, while being driven by a motor driver 807. A sub-scan motor 801 forwards

the recording medium [[4]] (performs a sub-scanning operation), while being driven by a motor driver 808.

Paragraph [0070] starting at page 23, line 23 and ending at page 25, line 1 has been amended as follows.

[0070] Fig. 8 illustrates how the average temperature Tave1 of the recording heads changes when the heating control of the recording heads is performed after the recording-interruption operation by means of the sucking operation is performed midway through the image-forming-and-recording operation, as described above. A sub-scan recording position A shown in Fig. 8 represents a position where the sucking operation of the recording heads is performed likewise as in Fig. 3. The temperature of the recording head lying in a position preceding the position A and during the image-recording operation is higher than that immediately after the start of the image-recording operation, as previously described. Also, the temperature of the recording head lying at the sub-scan recording position A and immediately after the finish of the sucking operation is lower than that occurring before the discharge-recovery operation. As a countermeasure against the above problem, according to the present embodiment, the heating control of the recording heads is performed by applying drive pulses, such as short-width-pulses, to ~~on~~ the recording heads immediately after the finish of the sucking operation and before the resumption of the image-recording operation, so that the average temperature of the recording heads immediately before the resumption of the image-forming operation is

increased to the temperature Tave1, as shown in Fig. 9. As a result, a difference in optical densities of the recording image before and after the sucking operation for performing the discharge recovery processing serving as the recording-interruption operation decreases.

Paragraph [0077] starting at page 27, line 14 and ending at page 28, line 8 has been amended as follows.

[0077] Fig. 12 is a graph illustrating the relationship between a recording downtime ti of the recording heads and a difference ΔD (= DB - DA, where DA and DB respectively represent optical densities immediately before and during the recording-interruption operation) in recording-image optical densities before and after the recording-interruption operation. When the recording downtime ti is short, ~~the~~ little difference ΔD in recording-image optical densities takes ~~place little~~ place. The recording-image optical density immediately after the resumption of the recording operation decreases gradually as the recording downtime ti becomes longer than tα, and thus the difference in recording-image optical densities before and after the recording-interruption operation starts to occur. After then, the difference ΔD in recording-image optical densities becomes gradually greater as the recording downtime ti becomes longer, and when the recording downtime ti becomes further longer up to tβ ($t\beta > t\alpha$), the difference in the recording-image optical densities becomes saturated ($\Delta D = DM$ when $ti > t\beta$, where DM is a saturated value).

Paragraph [0095] starting at page 36, line 17 and ending at line 22 has been amended as follows.

[0095] With this study in mind, in the recording apparatus according to the second embodiment of the present invention, the recording heads during the interruption of the recording operation are optimally controlled depending on the kinds of recording ink so as to record ~~an~~ a higher-quality image.

Paragraph [0099] starting at page 38, line 13 and ending at page 39, line 4 has been amended as follows.

[0099] Thus, in the present embodiment, as shown in Fig. 17, as the numbers of blur-correction ~~pluses~~ pulses to be applied on the corresponding recording heads for the hyperchromic cyan ink and the photo hypochromic cyan ink, two formulas of the numbers of blur-correction pulses N = f(ti) and N = g(ti) are previously obtained by means of experimental measurement and independently from each other. With this arrangement, the recording apparatus is controlled such that, after the recording downtime ti during the interruption of the recording operation of the recording heads is detected by the timer 812 serving as the recording-downtime detecting means, the number N of blur-correction pulses corresponding to each recording ink color is computed with the CPU 801 of the controller 800, and the computed blur-correction pulses corresponding to each

recording ink color are applied on the corresponding recording head immediately before the resumption of the recording operation.